

REMARKS

Claims 11-27 are now pending. Claims 11-22 stand rejected. Claims 23 and 24 are allowed. Claims 25-27 have been added as new independent claims. The new claims are supported by the original claims and the specification.

Claims 11-16, 18 and 21-22 have been rejected under 35 U.S.C. §102(b) as allegedly anticipated by Mehansho et al. U.S. 5,118,513. This rejection is now deemed moot. Applicant has amended claims 11-22 into method of use claims. Applicant's use is not taught nor suggested by Mehansho which describes similar elements in the reference but for use in a different way for a different purpose. The Examiner has picked and chosen elements from Mehansho to recreate applicant's composition. However, Mehansho's compositions are used in foods and beverages, e.g. apple juice (Examples in Mehansho). This reference is totally irrelevant to one skilled in the art of improving the water quality of biological maintenance systems, such as aquariums. Thus, the rejection of the claims over Mehansho is totally inappropriate with regard to the claims as amended. Withdrawal of the rejection is respectfully requested.

New Claim 25 is an independent claim to a water treatment composition which contains the limitations of claims 17 and 19 not rejected by Mehansho and thus are patentable over Mehansho.

Claims 12-16, 18 and 21 have been rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Mehansho in view of Kovacs, US 3,992,556. Kovacs is also directed to food products where vitamins are taught to be added thereto. Kovacs and Mehansho may be combinable as both dealing with food products, but are totally irrelevant to applicant's claims as amended for improving the water quality of biological maintenance systems. There is no teaching, suggestion or any motivation one skilled in the relevant art could find from both references alone or in combination to use such compositions in the manner and purpose claimed herein. Withdrawal of this rejection is respectfully requested.

Reconsideration is respectfully requested of the rejection of the claims 11-22 under 35 U.S.C. §103 as allegedly obvious over patent publication WO 97/34838 which corresponds to

U.S. Patent 6,477,982 (hereinafter the '982 patent) and WO 97/08960 which corresponds to U.S. Patent 6,306,453 (hereinafter the '453 patent) and further in view of German application 29617181 and/or German application 19704953.

The present invention provides a unique approach in a multi-component composition for the prolongation of water exchange-free intervals in biological maintenance systems. The present invention uses ecologically neutral, chemically- and microbiologically-active water additives. The present composition provides an environmentally safe water system for fish in aquariums, garden ponds, and the like, where frequency of changing the water is prolonged. The present composition when tested in a water system maintained the required limitations for fish to an extent where the water exchange free period was enhanced to 9 to 12 months. (See p. 29 of Applicant's specification).

The present invention is a unique system which uses microorganism activity in aquariums and garden ponds for improving the quality of water. The present invention combines particular inorganic cations with organic acid radicals to form salts and feed these salts to the microorganisms in the filter material or in the bottom ground in order to let the microorganisms decompose the organic parts of the salts. Thus, the decomposed salts or organic complex salts change their properties by forming precipitates and releasing carbon dioxide. The released carbon dioxide is beneficial and influences the hardness of the water as well as also being useful as a fertilizer for watering plants. The benefits of each ingredient in the present invention is pointed out in the specification. In addition to producing carbon dioxide as a beneficial component, particularly important are the removal of phosphates and nitrates by the use of the present composition. (See pages 3-5 of Applicant's specification).

The examiner stated in the office action with regard to this reference:

While the water treatment composition of Warner-Lambert Company '838 may not contain Mg and/or Al-citrate or vitamins, it would have been obvious to one skilled in the art at the time applicant's invention was made to incorporate one or both of Mg and Al-citrate and vitamins into the water treatment composition of Warner-Lambert Company '838 to contribute their pH stabilizing and/or buffering effects and vitamins as anti-stress agents in view of the teachings and/or to replace the Ca:Mg ratio taught to be often absent in tap or drinking water.

The examiner's statement appears to minimize the need for aluminum ions or other components for a) in the claims by this statement. In fact, the statement could only have been made in hindsight after reading applicant's specification and claims. The '982 patent does not teach or suggest sophisticated biological/chemical precipitation or CO₂-releasing reaction, starting with a partly biological degradation of a soluble additive, which for example removes the organic part of a salt and makes the remaining cation insoluble by forming a phosphate with the soluble phosphates that must be removed from the aquarium water. The reaction causes precipitation of the undesired material within the filter material or the bottom ground with the unexpected result that despite this precipitation, the water remains clear even during the precipitation process. Furthermore, the combination of several degradable additives in this manner results in the coincidental removal of other unwanted material from the aquarium water such as nitrates in the production of CO₂.

The '982 patent does not address components a) as claimed. The '982 patent mentions that sugars and organic carboxylic acids can be present, and some magnesium salts of organic carboxylic acids are provided in the reference. Nevertheless, the present composition as claimed and its purpose and properties are distinct from the '982 patent. The '982 patent is teaching the use of natural ingredients or components instead of synthetic materials and additives in aquarium water. Magnesium, citric or tartaric acid and sugars are disclosed by Ritter. This leaves no disclosure of components a), c) and e).

The second PCT reference cited corresponds to the '453 patent and is respectfully submitted to be irrelevant to the present invention. The patent describes anti-stress agents for improving the resurgence of aquatic animals in sea and fresh water. The composition includes a combination of vitamins and one or more immune stimulators. Although the present invention employs vitamins in component e), the present invention and the '453 are totally distinct in composition, properties and purpose. Thus, even a combination of references is applied, although not taught, there are still missing a teaching, suggestion or motivation to add elements a) and c).

German patent 29617181 describes improving aquarium water with natural means for inducing chlorine and other active chlorine compositions and with hydro- and/or bio-colloids.

The reference does not address the problems solved or the composition employed by the present invention. The combination of this reference with the '982 and/or '453 patents does not fill the void of the present invention as claimed.

The second German reference 19704953 is also different from the present invention since it describes a two-component flocculant agent for cleaning an aquarium that is clouded by algae or extreme amounts of unicellular organisms. This reference in combination with the primary references also does not fill the void of the present invention.

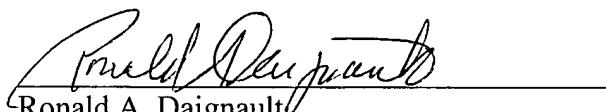
For the foregoing reasons, the examiner's rejection under 35 U.S.C. §103 is unwarranted and should be withdrawn.

New independent claims 25, 26 and 27 have been added. Claims 26 and 27 are similar to allowed claims 23 and 24 except for element e). These claims should be allowed. Claim 25 was already referred to above with regard to the rejections over Menansho and Menansho in view of Kovacs and is patentable thereover. In addition, for the reasons made above, Claim 25 is also patentable over the combination of Ritter, Kurtzinger in view of the German references.

It is respectfully submitted that the present amendment places the claims in condition for allowance; prompt passage to issue is earnestly solicited. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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